

MAC DONALD (A.)

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# NEURO-SOCIAL DATA.

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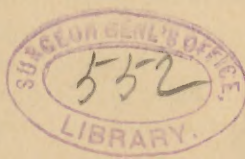
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## NEURO-SOCIAL DATA.

TABULAR STATEMENT GIVING QUANTITATIVE MEASUREMENTS OF SENSIBILITY  
IN PERSONS OF DIFFERENT AGES AND DIFFERENT CLASSES OF SOCIETY.

| No.  | Classification of Individuals.               | Number of persons. | Ages and average ages. | Average least sensibility to distance (locality) bet. two points on volar surface of wrists. |        | Average least sensibility to heat on volar surface of wrists. |        | Average least sensibility to pain (by pressure) on temporal muscles and on palm of hand. |                   |
|------|--|--------------------|------------------------|--|--------|---|--------|--|-------------------|
|      |  |                    |                        | r. wr.   | l. wr. | r. wr.  | l. wr. | right.   | left.             |
|      |  | 1                  | 2                      | 3  | 4      | 5   | 6      | 7  | 8                 |
|      |  |                    |                        | mm.  | mm.    | cent.   | cent.  | kilos.   | kilos.            |
| I    | Women (highly educated) . . . . .            | 23                 | av. 38                 | 17.3   | 16.2   | 2°.1  | 1°.7   | 1.253  | 1.224 (T. muscl.) |
| II   | Young Women (wealthy classes) . . . . .      | 11                 | un. 30                 | 13.6   | 12.4   | 4.6   | 4.4    | 2.9  | 2.4 (hand.)       |
| III  | Young Men (wealthy classes) . . . . .        | 10                 | " 30                   | 12.4   | 12.7   | 4.4   | 3.7    | 4.7  | 4.2 "             |
| IV   | Boston, Army of unemp. . . . .               | 35                 | av. 28                 | 16.1   | 15.6   |   |        | 9.5  | 9.5 "             |
| V    | Washington School Children (boys) . . . . .  | 526                | 6-18                   | 16.3   | 15.5   | 3.9   | 3.8    |  |                   |
| VI   | Washington School Children (girls) . . . . . | 551                | 6-18                   | 14.8   | 13.8   | 4.5   | 3.9    |  |                   |
| VII  | Boys (parents well-to-do) . . . . .          | 205                | 6-18                   | 16.2   | 15.2   | 4.0   | 3.9    |  |                   |
| VIII | Boys (parents poor) . . . . .                | 119                | 6-18                   | 16.6   | 15.9   | 4.0   | 3.7    |  |                   |
| IX   | Girls (parents well-to-do) . . . . .         | 183                | 6-18                   | 14.3   | 13.5   | 3.9   | 3.5    |  |                   |
| X    | Girls (parents poor) . . . . .               | 133                | 6-18                   | 14.9   | 13.8   | 3.9   | 3.6    |  |                   |
| XI   | Boys, before puberty . . . . .               | 318                | 6-14                   | 15.7   | 14.9   | 3.9   | 3.6    |  |                   |
| XII  | Boys, after " . . . . .                      | 208                | 15-18                  | 17.2   | 16.3   | 4.5   | 4.2    |  |                   |
| XIII | Girls, before " . . . . .                    | 186                | 6-12                   | 14.5   | 13.8   | 4.8   | 3.8    |  |                   |
| XIV  | Girls, after " . . . . .                     | 362                | 13-18                  | 15.1   | 14.0   | 4.3   | 4.0    |  |                   |
| XV   | Color'd Child'n, boys. . . . .               | 33                 | 6-19                   | 13.9   | 13.5   | 2.0   | 1.7    |  |                   |
| XVI  | " " girls. . . . .                           | 58                 | 6-16                   | 15.2   | 14.1   | 2.5   | 2.4    |  |                   |

The tests for temperature discrimination were made with Eulenberg's thermæsthesiometer; those for pain with the author's own algometer applied to the temporal muscle. All the psychical conditions were made as uniform as possible, especially with the children. Should these results be confirmed by experiments on larger numbers of individuals, the following statements would be probable:

Middle-aged women of the educated classes are much less acute

in the sense of locality on the wrist, but much more acute to heat than young women of the wealthy classes (Nos. I. and II., columns 2, 3, 4, 5, 6).

Young men of the wealthy classes are much more sensitive to locality and pain than the men in the Boston Army of the Unemployed (Nos. III. and IV., columns 3, 4, 7, 8).

Young women of the wealthy classes are much less sensitive to locality and heat, but much more sensitive to pain than young men of the wealthy classes (Nos. II., III., columns 3, 4, 5, 6, 7, 8). As to pain, it is true in general that women are more sensitive than men, as shown in a former investigation. But as remarked then, it does not necessarily follow that women cannot endure more pain than men.

Boys are more sensitive to locality and heat before puberty than after. Girls are more sensitive to locality before puberty, but their sensibility to heat is about the same before and after puberty (Nos. XI.—XIV., columns 3, 4, 5, 6).

Colored boys are more sensitive to locality and heat than white boys. Colored girls are less sensitive to locality, but more sensitive to heat than white girls (Nos. VI., and XVI., columns 3, 4, 5, 6). Colored boys are more sensitive to locality and heat than colored girls (Nos. XV. and XVI., columns 3, 4, 5, 6).

The left wrist is more sensitive to locality, heat and pain than the right wrist; only one exception. (No. III., columns 3, 4).

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These measurements are the first ever made on the nervous system of school children.

Their *practical* value, aside from their scientific, is this: Any pupil twenty per cent. above or below these averages for its age should be reported to the family physician; it is doubtful whether such a pupil should be allowed in school; if allowed, they should be separated from the others. There are too many bright pupils with weak bodies.

The importance of such facts increases as other facts are discovered.

